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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/679,911 | 10/06/2003 | Limin Wang | D03050 | 3818 |
| 43471 | 7590 | 01/03/2008 | EXAMINER | |
| Motorola, Inc. Law Department 1303 East Algonquin Road 3rd Floor Schaumburg, IL 60196 | | | | CZEKAJ, DAVID J |
| ART UNIT | | PAPER NUMBER | | |
| 2621 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------|-------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/679,911 | WANG ET AL. | |
| | Examiner Dave Czekaj | Art Unit 2621 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 October 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9,19-32,34-80 and 110-116 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9,19-32,34-80 and 110-116 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 19, 37, and 101 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Nishi et al. (RE39,318), (hereinafter referred to as "Nishi") in view of Wang et al. (2004/0131119).

Regarding claim 1, Nishi discloses an image processing method (Nishi: column 1, lines 12-15). This apparatus comprises "encoding digital video content comprising a stream of pictures which can each be intra, predicted, or bi-predicted in the form of blocks of pixels forming a two dimensional array of two dimensional array frequency coefficients, the method comprising scanning the two dimensional array frequency coefficients from each of the blocks in a manner that is vertically biased and producing a one dimensional array of frequency coefficients" (Nishi: figure 1; figure 31c; column 49, lines 55-58, wherein the vertically biased is the vertical priority). However, this apparatus lacks the scanning order as claimed. Wang teaches it is well known in the art that high-

energy low frequency coefficients are scanned before the low-energy high frequency coefficients in order to provide efficient coding and compression of the picture (Wang: paragraph 0017). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Nishi and add the scanning order taught by Wang in order to obtain an apparatus that can easily and efficiently compress a picture.

- Regarding claims 19, 37, and 101, note the examiners rejection for claim 1.
2. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Panusopone et al. (6647061), (hereinafter referred to as "Panusopone") in view of Wang et al. (2004/0131119).

Regarding claim 28, Panusopone discloses an apparatus that relates to compression of multimedia data (Panusopone: column 1, lines 6-10). This apparatus comprises "a decoder for scanning one dimensional array coefficients in a numerical sequential order, producing a two dimensional array of two dimensional coefficients" (Panusopone: column 5, lines 5-19). However, this apparatus lacks the scanning order as claimed. Wang teaches it is well known in the art that high-energy low frequency coefficients are scanned before the low-energy high frequency coefficients in order to provide efficient coding and compression of the picture (Wang: paragraph 0017). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Nishi and add the scanning order taught

by Wang in order to obtain an apparatus that can easily and efficiently compress a picture.

3. Claims 2-9, 20-27, 29-32, 34-36, 61-80, and 110-116 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishi et al. (RE39,318), (hereinafter referred to as "Nishi") in view of Wang et al. (2004/0131119) in further view of Takayama (6512791).

Regarding claim 2, note the examiners rejection for claim 1, and in addition, claim 2 differs from claim 1 in that claim 2 further requires assigning numbers to the columns and rows. Takayama teaches that in prior art computing systems, the adjustment for brightness is complicated which causes that apparatus to be quite large (Takayama: column 1, lines 31-36). To help alleviate this problem, Takayama discloses an apparatus in which "representing columns with a variable $n = 0-3$ and representing rows with a variable $m = 0-3$, and scanning the coefficients start at 0 and ending at 15 producing the one dimensional array of coefficients" (Takayama: figure 2; column 5, lines 22-26; column 12, lines 35-40. The examiner notes that a zig-zag scan will start at 0 and end at N , N being the number of coefficients in the matrix). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the processing taught by Takayama in order to better help process the brightness of an image.

Regarding claim 3, Takayama discloses "assigning a scanning order of 0-15 for the coefficients located between $n=0$ $m=0 - n = 3$ $m=3$ " (Takayama: figure

2; column 5, lines 22-26; column 12, lines 35-40. The examiner notes that the numbers will continue through N, N being the size of the matrix at hand. Further, the claim language does not state sequentially starting at scanning order 0 and ending at scanning order 15. Therefore a zig-zag scan would start at scanning order 0 and end at scanning order 15).

Regarding claims 4-9, 20-27, 38-60, note the examiners rejections for claims 2-3.

Regarding claims 29-32, 34-36, 61-80, and 110-116, note the examiners rejections for claims 1-3.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (571) 272-7327. The examiner can normally be reached on Mon-Thurs and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DJC

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